## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Anand G. Dabak, et al.

Docket No.: TI-28984A

Serial No.: TBD

Examiner (parent case): Ferris, Derrick

Filed: Herewith

Art Unit (parent case): 2663

For: SPACE TIME TRANSMIT DIVERSITY

FOR TDD/WCDMA SYSTEMS

Conf. No.: TBD

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Alexandria, VA 22313-1450

Dear Sir:

MAILING CERTIFICATE UNDER 37 C.F.R. § 1.8(A)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

Applicant wishes to bring to the attention of the Patent and Trademark Office the information noted on the enclosed PTO-1449. Copies of the listed references are enclosed.

This information disclosure statement is being mailed before receipt of a first office action on the merits in accordance with 37 C.F.R. 1.97(b)(3).

No fees are due, however, should the Office decide otherwise, please charge the necessary fee of \$180 to the deposit account of Texas Instruments Incorporated, Account Number 20-0668.

Respectfully submitted,

Ronald O. Neerings

Attorney for Applicants

Reg. No. 34,227

Texas Instruments Incorporated P. O. Box 655474, MS 3999 Dallas, Texas 75265 (972) 917-5299

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	Substitute for	Form 1449A/PTO		Application Number	TBD	
	INFORMATIO	N DISCLOSURE		Filing Date	Herewith	
		BY APPLICANT		First Named Inventor	Anand G. Dabak, et al.	
	STATEMENT	DI AFFLICANI		Group Art Unit	TBD	
	(use as many sh	eets as necessary)		Examiner Name	TBD	
Sheet	1	of	2	Attorney Docket No.	TI-28984A	

				U.S. PATENT DOCUMENTS		
		U.S. Patent Docur	nent	Name of Patentee or Applicant of	Date of Pub. of Cited Doc. (mm-dd-yy)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Exam. Initials	Cite No. <sup>1</sup>	Number	Kind Code <sup>2</sup> (if known)	Cited Doc.		
	AA	5,737,327		Fuyun Ling, et al.	04/07/1998	
	AB	6,178,196 B1		Ayman F. Naguib, et al.	01/23/2001	
	AC	US 2001 / 0024426 A1		Ariela Zeira, et al.	09/27/2001	
	AD	6,317,411 B1		Nicholas W. Whinnett, et al.	11/13/2001	
	AE	US 2002 / 0027948 A1		Donald Schilling	03/07/2002	
	AF	6,449,314 B1		Anand G. Dabak, et al.	09/10/2002	•
	AG	US 2003 / 0058929 A1		Earl C. Cox, et al.	03/27/2003	
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Exam. Initials*	Cite No.1	Foreign Patent Document			Name of Patentee or Applicant	Date of Pub. of		
		Office <sup>3</sup>	Number⁴	Kind Code <sup>2</sup> (if known)	of Cited Doc.	Cited Doc. (mm-dd-yy)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>®</sup>
	BA		EP 1 006 676 A2		Texas Instruments Inc	7/06/2000		
	ВВ		EP 1 056 237 A2		Texas instruments inc	29/11/2000	<u> </u>	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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		IT BY APPLICANT		First Named Inventor	Anand G. Dabak, et al.	
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	(use as man	y sheets as necessary)		Examiner Name	TBD	
Sheet	2	of	2	Attorney Docket No.	TI-28984A	

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Exam. Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	"A Novel Transmission Diversity System in TDD-CDMA", incheol Jeong, et al., Spread Spectrum Techniques and Applications, 1998. Proceedings., 1998 IEEE 5 <sup>th</sup> International Symposium, 09/02/1998-09/04/1998, Vol. 3, pp. 771-775	
	СВ	"A Simple Transmit Diversity Technique for Wireless Communications", Slavash M. Alamouti, IEEE Journal on Selected Areas in Communications, IEEE Inc., New York, US, Vol. 16, No. 8, 10/1998, pp. 1451-1458, XP002100058, ISSN: 0733-8716	
	СС	"Equalization and Multi-User Detection for Space Time Block Coding Based Transmit Diversity (STTD) in Frequency Selective Channels", Anand G. Dabak, et al., IEEE, 2000, VTC 2000, pp. 506-513	
	CD	"Space Time Block Coded Transmit Antenna Diversity Scheme for WCDMA", Anand G. Dabak, et al., Wireless Communications and Networking Conference, WCNC 1999, IEEE New Orleans, LA, USA 21-24 Sept. 1999, pp. 1466-1469, XP010353636, ISBN: 0-7803-5668-3	
	CE	"3" Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD) (3G TS 25.221 version 3.1.0 (1999-12))", Technical Specification, pp. 2-47	
	CF	"UTRA FDD and TDD, a harmonized proposal for IMT-2000", W. Mohr, international Conference on Communication Technology, 10/22-24/1998, Communication Technology Proceedings, 1998. ICCT '98., Beljing, China, pp. S22-03-1 to S22-03-5	
	CG	"Zero Forcing and Minimum Mean-Square-Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", Anja Klein, et al., IEEE Transactions on Vehicular Technology, Vol. 45, No. 2, 05/1996, pp. 276-287	
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